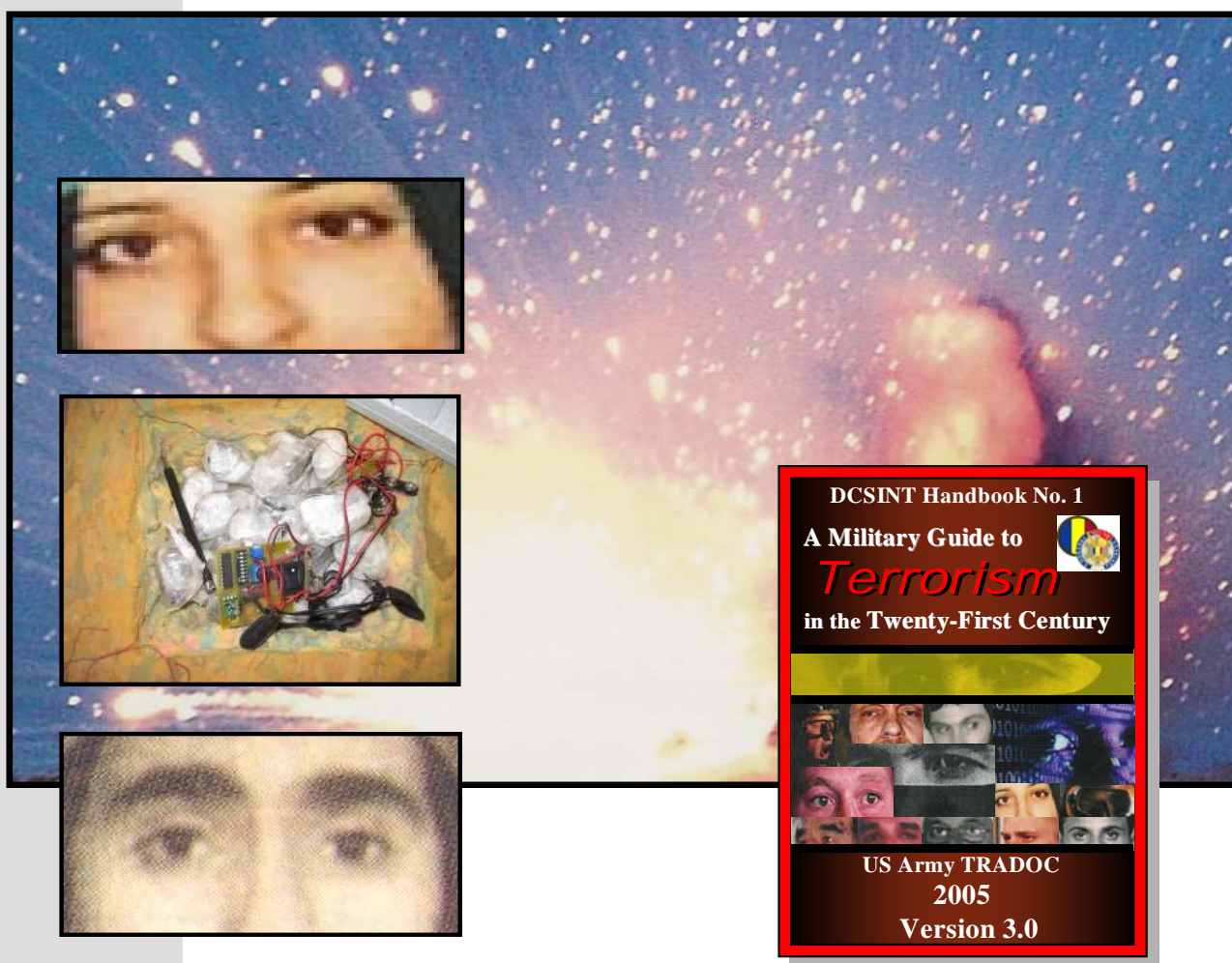




Suicide Bombing

In the COE



**US Army Training and Doctrine Command
Deputy Chief of Staff for Intelligence
Assistant Deputy Chief of Staff for Intelligence - Threats
Fort Leavenworth, Kansas
15 August 2005**

Report Documentation Page				Form Approved OMB No. 0704-0188	
Public reporting burden for the collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to a penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.					
1. REPORT DATE 15 AUG 2005		2. REPORT TYPE N/A		3. DATES COVERED -	
4. TITLE AND SUBTITLE Suicide Bombing In the COE, DCSINT, Handbook No. 1.03				5a. CONTRACT NUMBER	
				5b. GRANT NUMBER	
				5c. PROGRAM ELEMENT NUMBER	
6. AUTHOR(S)				5d. PROJECT NUMBER	
				5e. TASK NUMBER	
				5f. WORK UNIT NUMBER	
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) US Army Training and Doctrine Command, Dep Chief of Staff for Intelligence, Asst Deputy Chief of Staff for Intelligence - Threats, Fort Leavenworth, KS 66027				8. PERFORMING ORGANIZATION REPORT NUMBER	
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)				10. SPONSOR/MONITOR'S ACRONYM(S)	
				11. SPONSOR/MONITOR'S REPORT NUMBER(S)	
12. DISTRIBUTION/AVAILABILITY STATEMENT Approved for public release, distribution unlimited					
13. SUPPLEMENTARY NOTES The original document contains color images.					
14. ABSTRACT					
15. SUBJECT TERMS					
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT UU	18. NUMBER OF PAGES 42	19a. NAME OF RESPONSIBLE PERSON
a. REPORT unclassified	b. ABSTRACT unclassified	c. THIS PAGE unclassified			

This Page Intentionally Blank

ACKNOWLEDGEMENTS

Threats Terrorism Team (T3) Network

The Deputy Chief of Staff for Intelligence at U.S. Army Training and Doctrine Command extends special appreciation to the many stakeholders who were invited to contribute information, subject matter expertise, and insight into the update of this 2005 unclassified terrorism handbook, *A Military Guide to Terrorism in the Twenty-First Century*.

This expanding partnership of the Threats Terrorism Team (T3) Network in conjunction with the Assistant Deputy Chief of Staff for Intelligence-Threats includes:

U.S. Northern Command, J2 Combined Intelligence and Fusion Center (CIFC)
 U.S. Northern Command, Director of Operations, J3
 U.S. Northern Command, J34, Force Protection and Risk Management Branch
 U.S. Northern Command, J35
 U.S. Northern Command, JTF-Civil Support, J5 Plans, CBRNE Consequence Management
 U.S. European Command, Plans and Operations Center
 U.S. Pacific Command, Antiterrorism and Training Branch, J34
 U.S. Pacific Command, U.S. Marine Forces Pacific, G5
 U.S. Central Command, J2
 U.S. Special Operations Command, Center for Special Operations, J23
 U.S. Southern Command, J2
 U.S. Strategic Command, Joint Intelligence Center, J2201
 U.S. Joint Forces Command, J9
 U.S. Joint Forces Command, J34
 Joint Staff, J34 Deputy Directorate for Antiterrorism/Homeland Defense
 Joint Staff, J5 War on Terrorism Directorate, Strategic Planning Division
 Joint Military Intelligence Training Center (JMITC)
 State Department, Bureau of Diplomatic Security, Intelligence-Threats Analysis Directorate
 Office of the Assistant Secretary of Defense for Homeland Defense
 Department of Energy, Office of Headquarters Security Operations
 Department of Homeland Security, Director Preparedness Division, Operational Integration Staff
 Department of Homeland Security, Federal Emergency Management Agency, Region VII
 Department of Homeland Security, Citizen Corps FEMA Region VII Program Manager
 Department of Homeland Security, Transportation Security Administration, KCI Airport
 Federal Bureau of Investigation (FBI) Terrorism Watch and Warning Unit
 FBI, National Joint Terrorism Task Force (NJTTF)
 FBI, Counterterrorism Division, Military Liaison and Detainee Unit
 U.S. First Army Headquarters, Military Support Division, G3
 U.S. Fifth Army Headquarters, G3
 U.S. Navy Center for Antiterrorism and Navy Security Forces
 U.S. Navy, Naval War College
 U.S. Navy, Navy Command and Staff College
 U.S. Marine Corps Training and Education Command, G3 Training Readiness, Plans and Policy
 U.S. Marine Corps, Marine War College
 U.S. Marine Corps, Marine Corps Command and Staff College
 U.S. Air Force Security Forces Center
 U.S. Air Force, National Air and Space Intelligence Center, Behavioral Influences Analysis Division
 U.S. Air Force, Air War College
 U.S. Air Force, Air Command and Staff College
 U.S. Army Office of Deputy Chief of Staff G2, for Counterintelligence, HUMINT, and Security

U.S. Army Office of the Chief Information Officer (CIO)/G6
U.S. Army Network Enterprise Technology Command, 9th ASC, G2
U.S. Army Network Enterprise Technology Command, Office of Information Assurance
U.S. Military Academy (West Point), Combating Terrorism Center (CTC)
U.S. Army Combined Arms Center (CAC)
U.S. Army Maneuver Support Center (MANSCEN)
U.S. Army Combined Arms Support Command (CASCOM)
U.S. Army Combined Arms Center-Training (CAC-T)
U.S. Army Battle Command Training Program (BCTP)
National Defense University
U.S. Army TRADOC Centers and Schools, including:
U.S. Army, Army War College
U.S. Army Command and General Staff College (CGSC)
U.S. Army Logistics Management College (ALMC)
U.S. Army Aviation Logistics Center
U.S. Army Management Staff College
U.S. Army School of Information Technology
U.S. Army Leader College for Information Technology
U.S. Army Fort Eustis, Directorate of Plans, Training, Mobilization, and Security
U.S. Army Command and General Staff School (CGSS)
U.S. Army School for Command Preparation (SCP)
U.S. Army School for Advanced Military Studies (SAMS)
U.S. Army Center for Army Leadership (CAL)
U.S. Army Infantry Center, G2 Director of Intelligence and Security
U.S. Army Intelligence Center, Futures Development and Integration Center
U.S. Army Warrant Officer Career Center
U.S. Army Sergeants Major Academy
U.S. Army Soldier Support Institute
U.S. Army Academy of Health Sciences, Medical Department Center and School
U.S. Army Nuclear and Chemical Agency
U.S. Northern Command, Homeland Security/Defense Education Consortium (HSDEC)
U.S. Army TRADOC, Assistant Deputy Chief of Staff for Intelligence-Threats

Suicide Bombing in the COE

Contents

Contents	iii
Preface.....	v
Introduction.....	1
 Section I: History of Suicide Terrorism.....	 I-1
Definitions.....	I-1
History of Suicide Terrorism	I-2
 Section II: Objectives of Suicide Terrorism	 II-1
 Section III: Motivations to Conduct Suicide Terrorism	 III-1
Group Motivation	III-1
Individual Motivation.....	III-2
Recruitment.....	III-6
 Section IV: Profiles of Suicide Terrorists	 IV-1
 Section V: Planning Suicide Operations	 V-1
 Section VI: Execution of Suicide Operations	 VI-1
Improvised Explosive Device (IED)	VI-1
Vehicle Borne Improvised Explosive Device (VBIED).....	VI-2
 Conclusion	 Conclusion-1
 Selected Bibliography	 Bibliography-1

This Page Intentionally Blank

Preface

This handbook is one in a series of supplements to TRADOC DCSINT Handbook No. 1, *A Military Guide to Terrorism in the Twenty-First Century*, which is a basic terrorism primer prepared under the direction of the U.S. Army Training and Doctrine Command, Assistant Deputy Chief of Staff for Intelligence-Threats. The terrorist threat confronting our military spans foreign and domestic threats of nation-states, rogue states with international or transnational agent demonstrations, and actors with specific strategies, tactics, and targets. A major tactic used by many terrorist groups is the use of suicide attacks. Although suicide terrorism is covered in the capstone terrorism handbook, this supplement provides more detail and insight.

Purpose. This informational document supplements the basic terrorism handbook and supports operational missions, institutional training, and professional military education for U.S. military forces in the Global War on Terrorism (GWOT). This document provides an introduction to suicide terrorism, and addresses the history of the phenomena, how terrorist organizations recruit potential suicide bombers, motivations for use of suicide, characteristics of suicide bombers, various weapons and TTPs used by suicide bombers, and finally, the specific threats to the military.

Intended Audience. This document exists primarily for U.S. military forces, however, other applicable groups include interagency, intergovernmental, civilian contractor, non-governmental, private volunteer, and humanitarian relief organizations. Compiled from open source materials, this supplement promotes a “Threats” perspective of suicide terrorism. Neither a counter-terrorism directive nor anti-terrorism manual, the supplement complements but does not replace training and intelligence products on terrorism.

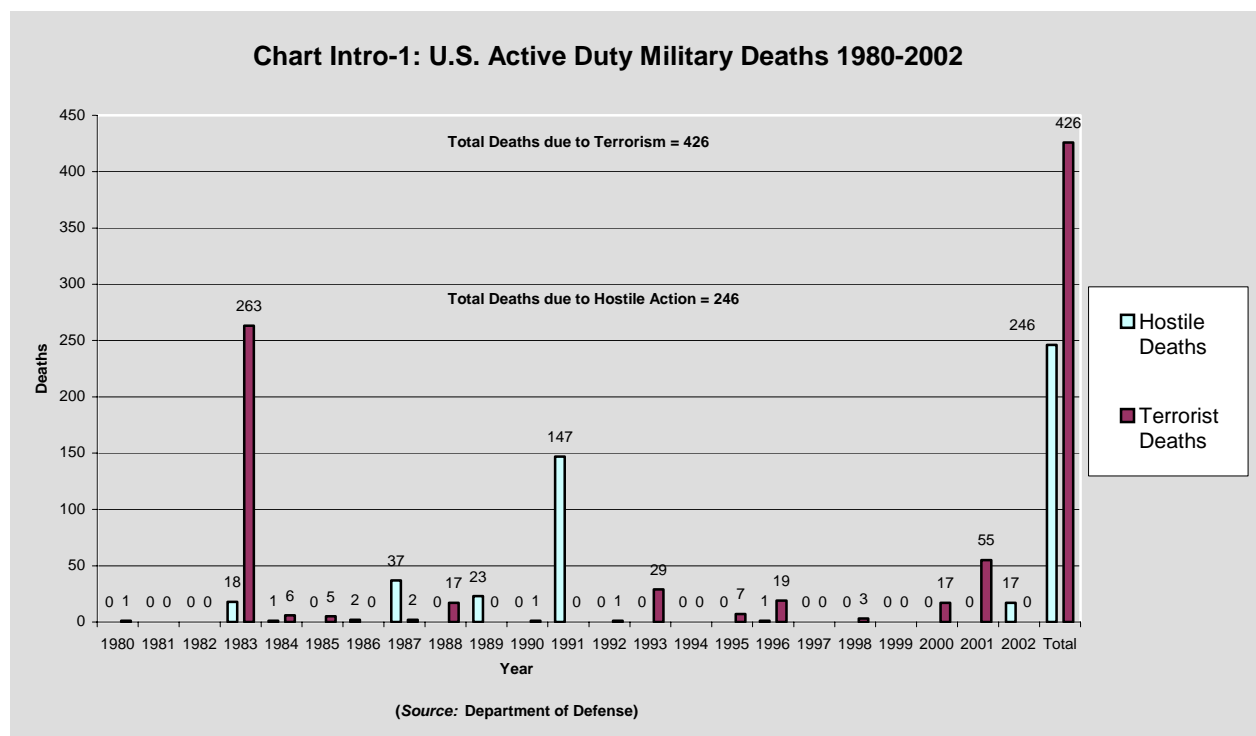
Handbook Use. Study of contemporary terrorist behavior and motivation, terrorist goals and objectives, and a composite of probable terrorist tactics, techniques, and procedures (TTP) improves readiness of U.S. military forces. As a living document, this supplement, which focuses on suicide terrorism, will be updated as necessary to ensure a current and relevant resource. A selected bibliography presents citations for detailed study of the topic. Unless stated otherwise, masculine nouns or pronouns do not refer exclusively to men.

Proponent Statement. Headquarters, U.S. Army Training and Doctrine Command (TRADOC) is the proponent for this publication. Periodic updates will accommodate emergent user requirements on terrorism. Send comments and recommendations on DA Form 2028 directly to TRADOC Assistant Deputy Chief of Staff for Intelligence – Threats at the following address: Director, TRADOC ADCSINT – Threats, ATTN: ATIN-L-T (Bldg 53), 700 Scott Avenue, Fort Leavenworth, Kansas 66027-1323. This handbook is available at Army Knowledge Online (www.us.army.mil). Additionally, the General Dennis J. Reimer Training and Doctrine Digital Library (www.adtdl.army.mil) list the handbook as a special text.

This Page Intentionally Blank

Introduction

Terrorism has become one of the most pervasive and critical threats to the security of the United States in recent history. U.S. military fatalities from terrorist actions between 1980 and 2002 exceed the total battle deaths from Operations Urgent Fury (Grenada), Just Cause (Panama), and Desert Shield/ Storm (Persian Gulf).¹ As Chart Intro-1 depicts, there were 672 military deaths between 1980 and 2002 attributed to either hostile action or terrorism. Of these deaths, 63% were due to terrorist actions.²



Since these Department of Defense figures only go through 2002, they do not include all the casualties from Operation Enduring Freedom (OEF), or any of the casualties from Operation Iraqi Freedom (OIF). As of 19 March 2005, OEF reported 66 hostile deaths since 7 October 2001.³ Figures for OIF as of 19 March 2005 indicate a total of 1,146

¹ Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports, *Table 13, Worldwide U.S. Active Duty Military Deaths, Selected Military Operations* (Washington, D.C., n.d.); available from <http://web1.whs.osd.mil/mmid/casualty/table13.htm>; Internet; accessed 6 July 2004.

² Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports, *U.S. Active Duty Military Deaths – 1980 through 2002* (Washington, D.C., As of 10 April 2003); available from http://web1.whs.osd.mil/mmid/casualty/Death_Rates.pdf; Internet; accessed 14 April 2005.

³ Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports, *Global War on Terrorism – Casualty Summary Operation Enduring Freedom* (Washington, D.C.,

hostile deaths, 109 occurring during major combat operations that terminated on 30 April 2003, and 1,037 occurring after the end of major combat operations.⁴ Although most of these deaths are officially attributed to combat operations, many deaths and injuries were caused by terrorist actions in these two theaters.

Terrorists are versatile in using various types of attacks to accomplish their objectives. These include bombings, hijackings, assaults, arson, firebombing, kidnapping, and armed attacks. However, one tactic that is becoming more prolific is the suicide attack. Although suicide attacks have been conducted for years, Rand Corporation's chronology of world terrorism indicated in 2003 that of the 144 suicide bombings recorded in their terrorism database, which was started in 1968, two thirds occurred between 2001 and 2003.⁵ Additionally, the total number of terrorist incidents of all kinds has decreased over the years. There was a peak in 1987 of 665 incidents, which decreased to a low of 205 in 2002.⁶ However, despite the decline in the overall number of terrorist attacks, suicide terrorist attacks have increased.

Since the attack on the U.S. embassy in Beirut in April 1983, there have been at least 300 separate suicide terrorist attacks worldwide. These attacks have occurred in numerous countries, to include Iraq, Lebanon, Israel, Sri Lanka, India, Pakistan, Afghanistan, Yemen, Turkey, Russia, Uzbekistan, and the United States. Numbers of attacks have increased from 31 in the 1980s to 104 in the 1990s, to 153 in the period 2000 to August 2004.⁷ Additionally, suicide attacks tend to be more deadly than other type of terrorist attacks. From 1980 to 2001, suicide attacks made up 3% of all terrorist attacks but accounted for 48% of total deaths, even when excluding the large number of deaths from the attacks on 9/11.⁸ With many of these suicide attacks directed against our forces in Iraq, plus with the deployment of our forces throughout the world, suicide terrorism is truly a threat the military must understand and combat.

In 2004 and 2005, DOD categorizes casualties in its missions around the world and makes some distinctions between types of military operations and terrorist attacks. American deaths due to terrorist attacks in 2004 were confined to Iraq, Saudi Arabia, Afghanistan, Egypt, and Gaza.⁹ Related topical data is available on civilian websites with details to suicide bombing casualties, but must be recognized that how incidents are

As of 11 December 2004); available from <http://web1.whs.osd.mil/mmid/casualty/WOTSUM.pdf>; Internet; accessed 21 December 2004.

⁴ Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports, *War on Terrorism – Operation Iraqi Freedom, By Casualty Category Within Type* (Washington, D.C., As of 11 December 2004); available from <http://web1.whs.osd.mil/mmid/casualty/OIF-Total.pdf>; Internet; accessed 21 December 2004.

⁵ Bruce Hoffman, "The Logic of Suicide Terrorism," in *Terrorism and Counterterrorism: Understanding the New Security Environment*, Russell D. Howard and Reid L. Sawyer (Guilford: McGraw-Hill/Dushkin, 2004), 268.

⁶ Department of State, Office of the Coordinator for Counterterrorism, *Patterns of Global Terrorism 2003* (Washington, D.C., April 2004, revised 22 June 2004), 176.

⁷ R. Ramasubramanian, "Suicide Terrorism in Sri Lanka" *IPCS Research Papers*, no. 5 (August 2004): 1.

⁸ Robert A. Pape, "The Strategic Logic of Suicide Terrorism," *American Political Science Review*, Vol 97, No 3 (August 2003), 5.

⁹ Department of State, *Country Reports on Terrorism 2004*, April 2005, 3.

classified by skew information and affect any inferences.¹⁰ The U.S. Federal Government determines that some attacks directed at combatants are not classified as terrorist attacks, whereas those against noncombatants (civilians and military personnel who at the time of the incident were unarmed and/or not on duty) can be classified as terrorist attacks. The U.S. National Counterterrorism Center (NCTC) now provides a chronology of significant, international terrorist incidents, but does not make any comparisons with previous years of topical information. The NCTC chronology cautions on using just 2005 NCTC data to measure success in the War on Terrorism.¹¹ *A Chronology of Significant International Terrorism for 2004*, and the Departments of State's *Country Reports on Terrorism 2004*, provides a 2005 assessment of international terrorism and its effect on U.S. citizens.

Historical analysis of suicide terrorism and comparison of recent 2005 operations in Iraq provide a vantage point of how military forces are a common target, directly or indirectly, of suicide terrorism. One study of suicide terrorism states that "...suicide terrorism is mainly a response to foreign occupation..." On a much larger scope, a review of suicide bombing worldwide from 1980 to 2003 identified 315 incidents. One conclusion is the commonality of a "...specific secular and strategic goal: to compel modern democracies to withdraw military forces from territory that the terrorists consider to be their homeland." Two other patterns emerged: 301 of 315 incidents were part of an organized political or military campaign, and that democracies were particularly vulnerable to suicide terrorism.¹²

Whether "terrorism" is defined as premeditated, politically motivated violence directed against noncombatants, or is a tactic of targeting of U.S. military members in the Homeland or abroad, terrorism is a compelling threat to the security of U.S. Armed Forces. A large number of military member casualties since the 1980s and including ongoing military missions in regions such as Iraq and Afghanistan have been the result of both terrorist activities and the use of terrorist tactics by insurgent forces. U.S. military forces will continue to experience terrorism as an element of missions in the contemporary operational environment for the foreseeable future.

¹⁰ "Iraq Coalition Casualty Count," available from <http://icasualties.org/oif/Details.aspx>; Internet; accessed 24 May 2005.

¹¹ National Counterterrorism Center, *A Chronology of Significant International Terrorism for 2004*, 27 April 2005.

¹² Robert A. Pape, "Blowing Up An Assumption," *New York Times*, 18 May 2005; available from <http://ebird.afis.osd.mil/ebfiles/e20050518369124.html>; Internet; accessed 18 May 2005.

This Page Intentionally Blank

Section I: History of Suicide Terrorism

“This is the poor man’s nuclear weapon, you don’t need a Tomahawk missile, this phenomenon is better. If a suicide bomber decides at the last minute he can turn 90 degrees from his target, to a new one, this is very powerful.”

Anat Berko in *The Path to the Garden of Eden*

Terrorism is not a new phenomenon of recent years, nor is the use of suicide attacks as a new tactical development. The sacrifice of one’s life for a cause has a historical basis that goes back to ancient times. In order to gain a solid understanding of the suicide terrorism threat our military faces today, it is useful to understand the historical background of this terrorist action. However, since there are numerous definitions of suicide terrorism, the first portion of this section examines the various definitions of suicide. The remainder of the section examines the origins of suicide terrorism and traces its evolution into the twenty-first century.

Definitions

In order to define suicide terrorism, it’s important to first define terrorism. As defined in the TRADOC DCSINT Handbook NO. 1, the Department of Defense approved definition of terrorism is: “The calculated use of unlawful violence or threat of unlawful violence to inculcate fear; intended to coerce or to intimidate governments or societies in the pursuit of goals that are generally political, religious, or ideological.”¹³ For the purposes of this document, this will be the standard definition.

There are many terms that are used to describe the use of suicide tactics by terrorists. Common terms are martyrdom operations, homicide attacks, genocide bombings, suicide bombings, and suicide attacks. Additionally, there is no official government definition of suicide terrorism. However, there are many examples of definitions in the literature covering the subject. Israel has been a major target of suicide attacks and has a long history of dealing with its effects. Dr. Boaz Ganor, the Executive Director of the International Policy Institute for Counter-Terrorism in Israel defines terrorism as “An operational method in which the very act of the attack is dependent upon the death of the perpetrator.”¹⁴ As Dr. Ganor explains in his article, the terrorist is fully aware that if he does not kill himself, the planned attack will not be implemented.

Sri Lanka is another region of the world that has been plagued with suicide attacks. A research paper on suicide terrorism in Sri Lanka by The Institute of Peace and Conflict Studies in India defines suicide terrorism as, “The readiness to sacrifice one’s life in the

¹³ Joint Publication 1-02, Department of Defense Dictionary of Military and Associated Terms, 12 April 2001, as amended through 7 October 2004.

¹⁴ Dr. Boaz Ganor, “The First Iraqi Suicide Bombing: A Hint of Things to Come?,” International Policy Institute for Counter-Terrorism Article (30 March 2003): 1; available at <http://www.ict.org.il/articles/articleDet.cfm?articleid=477>; Internet; accessed 12 December 2004.

process of destroying or attempting to destroy a target to advance a political goal. The aim of the psychologically and physically war-trained terrorist is to die while destroying the enemy target.”¹⁵

In the United States the Congressional Research Service of the Library of Congress defines suicide attacks as, “Events where the ‘success’ of the operation cannot occur without the death of the perpetrator, and he or she is apparently aware of this in advance.”¹⁶

Regardless of the definition used, the common element of suicide terrorism is the fact that the terrorist attack will only succeed if the attacker kills himself/herself. This is different from what is often described as suicidal terrorism. This is a high-risk operation where the terrorist may not kill himself in conducting the attack but his chance of survival is very slim. However, the success of the mission does not depend on the terrorist actually killing himself.

History of Suicide Terrorism

Historically, the use of suicide attacks by terrorists dates back to ancient times. Terrorist suicide attacks are not a new method. In fact, suicide attacks are a very old *modus operandi*. In ancient times two notorious sects, the Jewish Sicairis and the Islamic Hashishiyun became infamous for such attacks. In the eighteenth century, suicide tactics were used on the Malabar Coast of southwestern India, in Atjeh in Northern Sumatra and in Mindanao and Sulu in the Southern Philippines.

Simultaneous suicide and homicide has been employed as an act of warfare since ancient times. In the Middle Ages the Jewish Sicairis and Islamic Hashishiyun sects were infamous for such attacks. In the eighteenth century suicide–homicide tactics were used in India, Sumatra and the Philippines, and in the 20th century the Japanese launched kamikaze attacks during the Second World War.

Another group, the Muslim Assassins (also known as Ismailis-Nazari) that operated in the eleventh through the thirteenth centuries, conducted suicide missions. Although they did not have Improvised Explosive Devices (IEDs) that could be used to kill both their victims and themselves simultaneously, they conducted their operations that ensured their death as part of the mission. They used daggers to kill their victims, usually prominent officials, in public places where there were many witnesses. This assured publicity of their acts. The group’s description of these assassins as “fedayeen,” which means consecrated ones and their admiration for martyrdom during these attacks mirrors some actions of Islamic terrorist organizations today.¹⁷

Muslim communities in Asia from the eighteenth through the early twentieth centuries experienced suicide operations too. Muslims in regions of Southwestern India, Northern

¹⁵ Rohan Gunaratna, “Suicide Terrorism: a Global Threat,” in “Suicide Terrorism in Sri Lanka” *IPCS Research Papers*, no. 5, R. Ramasubramanian (August 2004), 3.

¹⁶ Audrey Kurth Cronin, *Terrorists and Suicide Attacks* (Washington, D.C.: Congressional Research Service Report for Congress, 28 August 2003), 2.

¹⁷ *Ibid.*, 3.

Sumatra, and in the Southern Philippines used suicide attacks to punish and instill fear in the European colonial powers. Prior to these attacks, the attackers participated in religious rituals believing they would be seen as martyrs as they sacrificed their lives for their cause. In each case, the suicide attacks against civilians followed unsuccessful warfare against a more powerful European military force.¹⁸

After the invention of dynamite in the late nineteenth century, terrorists began using bombs in their attacks. Groups, such as the Narodnaya Volya (People's Will) in Russia, used suicide bombers to get close to their victims since these early devices were not the most effective.

Many people say that contemporary suicide attacks began in April 1983 when Hezbollah attacked western targets in Lebanon. A suicide bomber in a pickup truck loaded with explosives rammed into the U.S. Embassy in Beirut killing sixty-three people, including 17 Americans. In October of the same year a suicide bomber detonated a truck full of explosives at the U.S. Marine Corps barracks located at Beirut International Airport killing 220 U.S. Marines and 21 other U.S. service members. On the same day, a separate blast on the French compound in Beirut killed 58 French service members. These attacks resulted in the withdrawal of Western forces from Lebanon. Hezbollah then started using suicide attacks against the Israeli Defense Force in Lebanon and against South Lebanese Army posts.¹⁹ Although Hezbollah was a relatively unknown group at this time, their introduction of suicide attacks allowed the group to gain global publicity, with their willingness to sacrifice themselves for their cause.

After the actions by Hezbollah, suicide terrorism spread throughout the world becoming a frequently used tactic by many terrorist organizations. Hamas and the Palestinian Islamic Jihad started suicide attacks in Israel in 1993, killing and wounding hundreds of people. Although they focused their initial attacks against military targets, they quickly changed tactics to targeting civilians. Gama'a al-Islamiya and the Egyptian Islamic Jihad, both Egyptian terror groups, have also conducted suicide attacks, but not in Egypt itself due to their reluctance to alienate their constituency in Egypt. Gama'a al-Islamiya attacked a police station in Croatia in October 1995 and the Egyptian Islamic Jihad used two suicide bombers to destroy the Egyptian embassy in Pakistan in November 1995. After military setbacks in Southeast Turkey negatively impacted the group's moral in 1996, the Kurdistan Worker's Party (PKK) began to use suicide attacks to boost the morale of its fighters. Not only did these attacks show the PKK's ability to damage their opponents, but also demonstrated their willingness to die for Kurdish national goals.

Al-Qaeda is probably the terrorist group that Americans are most familiar with today. Their use of suicide terrorism may not be as prolific as some other groups, but they do have a history of conducting the "spectacular" event resulting in large-scale casualties. They were responsible for the suicide attacks on the U.S. Embassies in Nairobi and In

¹⁸ Ibid., 3.

¹⁹ Yoram Schweitzer, "Suicide Terrorism: Development & Characteristics," International Policy Institute for Counter-Terrorism Article (21 April 2000): 2; available at <http://www.ict.org.il/articles/articleDet.cfm?articleid=112>; Internet; accessed 10 November 2004.

Dar-e-Salaam in 1998, the USS *Cole* in Aden Harbor in 2000, and the World Trade Center and Pentagon attacks in September 2001.²⁰

The Tamil Tigers (LTTE) in Sri Lanka, however, are recognized as the most effective and brutal organization to utilize this form of terrorism. The LTTE has a suicide unit, The Black Panthers that consists of both men and women that direct their attacks primarily against senior government and military personnel. Between July 1987 and February 2000, the LTTE carried out approximately 168 suicide attacks in Sri Lanka and India killing and wounding thousands of innocent bystanders. Additionally, it is the only organization that succeeded in assassinating two heads of states. Former Prime Minister of India Rajiv Gandhi was killed in May 1991 by a female suicide bomber and Sri Lanka President Prendesa was killed in 1993 by a male suicide bomber who had lived at the president's premises for about a year prior to conducting the suicide attack.²¹

In short, suicide terrorism has been on a continuous incline over the past 20 years. From compelling both the Americans and the French to leave Lebanon in 1983, to concessions granted to the Tamil Tigers by Sri Lanka, terrorists groups have learned that it often results in success. Although these groups may not have achieved all of their objectives when using suicide terrorism, many groups have made more gains after they resort to suicide operations than prior to resorting to this tactic. Consequently, many of the terrorist leaders credit their gains to the use of suicide terrorism, which probably has encouraged terrorist groups to expand the use of suicide attacks.²²

²⁰ Ibid., 3-5.

²¹ Ibid., 3.

²² Robert A. Pape, "The Strategic Logic of Suicide Terrorism," 2.

Section II: Objectives of Suicide Terrorism

If an organization or an individual is going to resort to the use of suicide terrorism, there must be a critical objective they need to achieve that justifies the voluntary sacrifice of life. As discussed earlier, the Defense Department's definition of terrorism is, "The calculated use of unlawful violence or threat of unlawful violence to inculcate fear; intended to coerce or to intimidate governments or societies in the pursuit of goals that are generally political, religious, or ideological."²³ In keeping with this definition, the terrorist must have a method of coercing and intimidating these governments and societies. They have found that suicide terrorism is an effective tool in accomplishing this objective. As Robert Pape states in "Strategic Logic of Suicide Terrorism," "...suicide terrorism follows a strategic logic. Even if many suicide attackers are irrational or fanatical, the leadership groups that recruit and direct them are not." He goes on to say, "Viewed from the perspective of the terrorist organization, suicide attacks are designed to achieve specific political purposes: to coerce a target government to change policy, to mobilize additional recruits and financial support, or both."²⁴

The head of RAND Corporation's terrorism research unit in Washington, DC, Bruce Hoffman, states that using suicide terrorism undermines the public confidence in the government's ability to protect and defend its citizens. This creates a climate of fear and intimidation that terrorists can exploit to their use.²⁵ In fact, Palestinians say that suicide attacks are a strategic weapon and that they have effectively terrorized the Israeli society. People become paranoid and fearful of leaving their homes. The terrorists' hope is that their targets will at least acquiesce to their demands.

The following are some major objectives that terrorist groups hope to achieve through the use of suicide terrorism:²⁶

Achieve Major Political Goals: The use of suicide attacks by terrorist groups to achieve major political objectives is becoming more common. The terrorists attempt to impose sufficient suffering on the target society to either cause the government to agree to the terrorists' demands or to cause the population to revolt against the government. Examples of this include:

"The price we had to pay in Beirut was so great, the tragedy at the barracks was so enormous...We had to pull out...We couldn't stay there and run the risk of another suicide attack on the Marines. No one wanted to commit our troops to a full-scale war in the Middle East."

President Ronald Reagan in *An American Life*

²³ Joint Publication 1-02, Department of Defense Dictionary of Military and Associated Terms, 12 April 2001, as amended through 7 October 2004.

²⁴ Robert A. Pape, "The Strategic Logic of Suicide Terrorism," 2.

²⁵ Bruce Hoffman, "The Logic of Suicide Terrorism," in *Terrorism and Counterterrorism: Understanding the New Security Environment*, 263.

²⁶ R. Ramasubramanian, "Suicide Terrorism in Sri Lanka," 1-3.

- Attacks by Hezbollah to force the United States and France out of Lebanon.
- Suicide attacks in Iraq to force the coalition out of the country and to stop elections.
- Attacks by the LTTE to force the Sri Lankan government to accept an independent Tamil homeland.
- Multiple Palestinian groups attempting to force Israel to abandon the West Bank and Gaza.
- Al Qaeda trying to force the United States out of the Saudi Arabian Peninsula.

Punish a state or society for doing harm to their community or religion: Many of the attacks against American targets are due to a perception of anti-Islam policies by the United States.

- Several of the attacks against U.S. troops in Iraq during 2004 were cited by terrorists as “reprisals” for military actions against mosques.
- Changes to the roles of women have also been used as an excuse for terrorist actions in both Iraq and Afghanistan.

Use against specific targets: This objective is usually targeting specific individuals, usually political leaders, for assassination. It can also indicate a specific operational requirement that can be met in no other way. There have been a number of key assassinations in recent history through the use of suicide attacks. These include:

- Former Prime Minister of India Rajiv Gandhi was killed in May 1991 by a female LTTE suicide bomber.
- Sri Lanka President Prendesa was killed in 1993 by an LTTE suicide bomber.
- Northern Alliance leader, Ahmed Shah Masood, was assassinated by an al Qaeda suicide bomber in Afghanistan in September 2001.
- Iraqi Governing Council president, Ezzedine Salim, was killed by a suicide bomber in May 2004.
- Iraqi Minister of Environment, Meshkat Al Mutmin, was assassinated by a suicide bomber in September 2004.

Create high casualties to ensure media coverage to mobilize support for their cause: The way that the media tends to cover suicide attacks, especially when there are large casualties involved, helps to accomplish some of the goals of the terrorist group. With the media often focusing on the suicide terrorist, rather than on his victims, other individuals supporting his cause often want to emulate his action, which helps in the recruitment efforts of the terrorist group. One of the obvious examples of this is the

suicide attack on 9/11, which created a large number of casualties and received extensive worldwide media coverage.

Revenge: Suicide terrorism will often be used to seek revenge for atrocities alleged or confirmed conducted by a group/country/security force against relatives or close friends of the attacker. This has been the case with several Chechen women who have lost family members.

The terror group has failed to meet its goals through less extreme measures: When less extreme methods fail to meet the group's goals, suicide terrorism often provides a tactical edge and a potential inspiration to the group's rank and file.²⁷ This provides a potential indicator that counter-efforts are effective and causing a change in tactics.

- The Tamil Tigers gained in recruitment after they began their suicide bombing campaigns.
- Hezbollah gained international publicity after its bombing attacks in Beirut, when at the time they were little known beyond Israel and Lebanon.

²⁷ Ehud Sprinzak, "Rational Fanatics," *Foreign Policy*, no. 120 (September/October 2000): 66-73.

In Robert Pape's "The Strategic Logic of Suicide Terrorism," he studied suicide attacks between 1980 and 2001. He determined that there were 16 suicide terrorist campaigns during this timeframe. The following table is an extract from his article published in the *American Political Science Review* that shows the terrorist groups, their goals, and the results of their attacks.²⁸

Date	Terrorist Group	Terrorists' Goal	No. of Attacks	No. Killed	Target Behavior
Completed Campaigns					
1. Apr–Dec 1983	Hezbollah	U.S./France out of Lebanon	6	384	Complete withdrawal
2. Nov 1983–Apr 1985	Hezbollah	Israel out of Lebanon	6	96	Partial withdrawal
3. June 1985–June 1986	Hezbollah	Israel out of Lebanon security zone	16	179	No change
4. July 1990–Nov 1994	LTTE	Sri Lanka accept Tamil state	14	164	Negotiations
5. Apr 1995–Oct 2000	LTTE	Sri Lanka accept Tamil state	54	629	No change
6. Apr 1994	Hamas	Israel out of Palestine	2	15	Partial withdrawal from Gaza
7. Oct 1994–Aug 1995	Hamas	Israel out of Palestine	7	65	Partial withdrawal from West Bank
8. Feb–Mar 1996	Hamas	Retaliation for Israeli assassination	4	58	No change
9. Mar–Sept 1997	Hamas	Israel out of Palestine	3	24	Hamas leader released
10. June–Oct 1996	PKK	Turkey accept Kurd autonomy	3	17	No change
11. Mar–Aug 1999	PKK	Turkey release jailed leader	6	0	No change
Ongoing Campaigns, as of December 2001					
12. 1996–	Al Qaeda	U.S. out of Saudi Peninsula	5	3,329	TBD ^a
13. 2000–	Chechnen Rebels	Russia out of Chechnya	4	53	TBD
14. 2000–	Kashmir Rebels	India out of Kashmir	3	45	TBD
15. 2001–	LTTE	Sri Lanka accept Tamil state	6	51	TBD
16. 2000–	Several	Israel out of Palestine	39	177	TBD
Total incidents	188				
No. in campaigns	179				
No. isolated	9				

Source: Pape (2002).
^aTo be determined.

Source: Robert A. Pape, "The Strategic Logic of Suicide Terrorism," *American Political Science Review*, July 2003.

In the last two years suicide bombing has become the "Iraqi insurgency's weapon of choice", with 90 attacks, accounting for 750 deaths, in May of 2005 alone. Suicide attacks have increased over remotely detonated IEDs/VBIEDs by almost 2-1 during the spring of 2005. In April there were 69 suicide attacks. More than in the entire year preceding the June 28, 2004 hand-over of sovereignty.

²⁸ Robert A. Pape, "The Strategic Logic of Suicide Terrorism," 6.

Section III: Motivations to Conduct Suicide Terrorism

As discussed in Section 1, suicide terrorism has been used for centuries. The question that often arises, though, is what motivates an individual to conduct this type of operation. When a remotely detonated VBIED can cause massive casualties, why use suicide terrorism? Is it blind loyalty to a leader or a cause, strict beliefs in a religious cult, or simply the desire for revenge against someone who has wronged the individual? This section examines some of the commonly agreed upon motivations, first looking at motivations of terrorist groups to use the tactic, and then motivations of the actual individuals who commit the act.

Group Motivation

When examining the use of suicide terrorism from a group perspective, there are a number of reasons why this tactic would be chosen for an operation.

- Suicide attacks can result in large casualties and extensive damage. Since a suicide bomber is usually mobile and is the ultimate “smart bomb,” the attack can usually be carried out at the most appropriate time and location with regard to the intended target. Unless the terrorist is intercepted enroute to the target, this almost guarantees that the maximum number casualties and damage from the attack can be achieved.
- Success of the suicide mission is almost guaranteed once the attacker departs for the operation. Even if he/she is stopped by a security force enroute to the target, they can still activate the attack and cause some form of damage. Additionally, regardless of where the attack takes place, it normally receives media coverage.
- Suicide attacks usually have a large psychological effect on the public due to the sense of helplessness often encountered in trying to prevent these types of attack.
- Suicide attacks are relatively inexpensive, yet very effective. Estimates are that it can cost as little as \$150 to conduct a suicide attack.²⁹ Although extremely complicated attacks may cost more, the effectiveness of these attacks is usually worth the investment. For instance, the estimated cost to plan and conduct the 9/11 attacks is between \$400,00 and \$500,000, yet the resulting massive casualties, economic expense to the United States, and the notoriety received by al Qaeda made this attack exceptional in terrorist value with minimal money cost.
- Suicide attacks often result in large donations to support the cause of the group. For example, a Saudi telethon raised more than \$100 million for the Palestinians after an 18-year-old Palestinian girl conducted a suicide bombing of a supermarket. Support from outside of the country is also a common result of suicide attacks. One estimate indicates that the Tamil Tigers have received annual support of approximately \$150 million from 800,000 Tamils living throughout the world.³⁰

²⁹ Bruce Hoffman, “The Logic of Suicide Terrorism,” in *Terrorism and Counterterrorism: Understanding the New Security Environment*, 260-261.

³⁰ Audrey Kurth Cronin, *Terrorists and Suicide Attacks*, 10.

- Although extensive planning and support is normally required for a suicide attack, it is normally less complicated than other type operations. This is especially true since no escape plan is required for the attacker, which is usually one of the most problematic and complicated steps of a terrorist operation.³¹ Consequently, it allows the terrorist to enter a high security area with no plan for escape.
- The use of suicide terrorism presents minimal security risks to the group. Since the terrorist conducting the attack is killed as a result of the operation, there is no fear by the terrorist group that he/she will be caught and interrogated by security forces. Additionally, if the attacker is actually captured alive, he is normally deliberately uninvolved in planning the attack and has little information to provide if captured.³²
- Media coverage of a suicide attack is almost guaranteed. This helps to mobilize support for the terrorists' cause. It also allows the "romanticisation" of the act of suicide terrorism in the public mind, which often helps in recruiting volunteers to conduct further suicide attacks.³³

Individual Motivation

It is one thing for a terrorist group to decide to use suicide attacks as a tactic to achieve their goals. It is something else for someone to actually volunteer to conduct these type attacks. However, as R. Ramasubramanian states in his August 2004 IPCS Research Paper, "The continuing spate of attacks in Iraq, Saudi Arabia, Israel and Sri Lanka has made suicide terrorism seem like a flourishing sunrise industry."³⁴ Although there are some who believe that only deranged fanatics carry out suicide attacks, this is almost never the case. Research indicates that most terrorist operatives are psychologically normal and that attacks are almost always preplanned. Although there have been some cases of coercion and deception in recruiting suicide attacks and/or executing the attacks, most suicide attacks are conducted by individuals who are fully aware of their fate as well as the fate of their victims.³⁵ What, then, motivates someone to conduct these types of attacks? The actual motivation of a specific suicide bomber is usually unknown for certain, since the individual is killed in the process of the action. However, some commonly accepted motivations include:

- A strong belief in the cause of their group and a commitment to the welfare of the terrorist group may drive individuals to engage in suicide attacks. For some individuals, the survival of their terrorist organization is valued above their own life.
- Similar to the objectives listed previously for why a terrorist group uses suicide terrorism, the individual also often has a desire to seek revenge for some form of humiliation or for atrocities conducted by a group/country/security force against relatives or close friends.

³¹ Dr. Boaz Ganor, "The First Iraqi Suicide Bombing: A Hint of Things to Come?," 2.

³² R. Ramasubramanian, "Suicide Terrorism in Sri Lanka," 6.

³³ B. Raman, "Suicide & Suicidal Terrorism," South Asia Analysis Group Paper No. 947 (12 March 2004): 6; available at <http://www.saag.org/papers10/paper947.html>; Internet; accessed 5 January 2005.

³⁴ R. Ramasubramanian, "Suicide Terrorism in Sri Lanka," 1.

³⁵ Audrey Kurth Cronin, *Terrorists and Suicide Attacks*, 6.

- For those that live a life of abuse, frustration, or humiliation, death through a suicide attack against their tormentors is better than living in their current circumstances. This existence, and outlook on life, predominates a generation grownup in refugee camps throughout the Arab region.
- For some extremists, the resulting death by a suicide attack is not considered suicide. Although Islamic law firmly opposes suicide, he/she is considered a “shahid,” which is a martyr who died while supporting a religious command for Jihad.
- They associate martyrdom with hero status and conduct a suicide attack to impress an audience and to be remembered.³⁶ This is especially evident in people who perceive their lives as having little significance otherwise.³⁷ For example, the LTTE holds an annual “Hero’s Day” to honor all suicide terrorists who sacrificed their lives for their cause.
- Material incentives for the individual’s family, such as cash bonuses, free apartments, and the guarantee of a place with God.³⁸
- Motivated by religion, religious/ethnic nationalism, or ethnic nationalism.³⁹
- Women often use suicide attacks as a way to escape the predestined life expected of them, making a statement in the name of their gender.⁴⁰ Additionally, a desire by women to prove their equality with male peers is often used by terrorist groups to manipulate women into “volunteering” for suicide missions.
- An environment where suicide terrorism is prevalent and the suicide terrorists are honored creates a subculture that perpetuates martyrdom. Children that are raised in this type environment may actually be subtly indoctrinated into volunteering for suicide operations.
- For some women, a suicide act may be a cleansing operation to free the woman from guilt towards herself or her family for committing forbidden acts. For example, in January 2004, a 22-year-old mother conducted a suicide operation in the Gaza Strip. The IDF claimed that she was forced to conduct the attack as punishment for cheating on her husband.⁴¹

“I am very happy and proud of what my son did and I hope all the men of Palestine and Jordan would do the same.”

Hassan Hotary, Father of Suspected Tel Aviv Suicide Bomber

³⁶ R. Ramasubramanian, “Suicide Terrorism in Sri Lanka,” 16.

³⁷ Audrey Kurth Cronin, *Terrorists and Suicide Attacks*, 6.

³⁸ Ibid., 6.

³⁹ “Suicide Terrorism: A Global Threat,” *Jane’s Intelligence Review* (20 October 2000): 4; available at http://www.janes.com/security/international_security/news/usscole/jir001020_1_n.shtml; Internet; accessed 12 December 2004.

⁴⁰ Clara Beyler, “Messengers of Death: Female Suicide Bombers,” ICT Research Paper, 12 February 2003, 1; available from <http://www.ict.org.il/articles/articledet.cfm?articleid=470>; Internet; accessed 10 November 2004.

⁴¹ Paul Goldman, “Looking Inside the Mind of a Suicide Bomber,” *MSNBC.com*, 3 December 2004; available from <http://msnbc.msn.com/id/6330687>; Internet; accessed 13 December 2004.

- Some suicide terrorists are people who have been exploited by terrorist organizations. These individuals may be very young and impressionable and are enamored with the idea of becoming a martyr; they may be women who desecrated their family honor, or someone who simply cannot withstand the pressure by the terrorist group to commit to suicide operations.
- Some suicide terrorists believe that by becoming a martyr, they will receive a number of benefits in their afterlife:⁴²

A September 2003 article published in the Jaffee Center for Strategic Studies *Strategic Assessment* addressed Palestinian suicide terrorists. In this study the authors, Shaul Kimhi and Shmuel Even, developed a typology of suicide terrorists acting against Israel. The study identified four prototypes of suicide terrorists: the religious fanatic, the nationalist fanatic, the revenge seeker, and the exploited. Although the study was specifically addressing Palestinian suicide terrorists, their analysis is also applicable to other terrorists.⁴³

Prototype	Prerequisites	Supporting Factors	Hypotheses as to the Prototype's Dominant Personality Traits
Religious Fanatic	<ul style="list-style-type: none"> • Religious indoctrination encouraging and urging suicide attacks. • Charismatic religious leaders with great influence on candidates for suicide operations. 	<ul style="list-style-type: none"> • A sympathetic public atmosphere within the religious community that praises martyrs, which includes publicity, great honor, and commemoration. • A group that is characterized by intensive process of collective thought. • Community support of the family of the deceased suicide terrorist. 	Faithful, steadfast, goal-focused, belief in divinely determined fate, influenced by people whom s/he reveres, belief in the world to come.
Nationalist Fanatic	<ul style="list-style-type: none"> • Well-developed political consciousness, along with a sense of an uncompromising struggle to 	<ul style="list-style-type: none"> • Participation of the organization to which the individual belongs in the suicide attack. • A sympathetic public atmosphere that praises the sacrifice. 	Steadfast, sure in his/her ways, willing to sacrifice him/herself for the general public (idealist).

⁴² Boaz Ganor, "Suicide Terrorism: an Overview," International Policy Institute for Counter-Terrorism Article, 15 February 2000, 3.

⁴³ Shaul Kimhi and Shmuel Even, "Who are the Palestinian Suicide Terrorists?," *Strategic Assessment*, Vol 6, No 2 (September 2003), 7-9; available from <http://www.tau.ac.il/jcss/sa/v6n2p5Kim.html>; Internet; accessed 3 December 2004.

Prototype	Prerequisites	Supporting Factors	Hypotheses as to the Prototype's Dominant Personality Traits
	liberate Palestine. <ul style="list-style-type: none"> A clear feeling that the armed struggle and suicide attacks are an effective and necessary weapon in achieving political goals. 	<ul style="list-style-type: none"> Media that ensures wide coverage both in Palestinian community and internationally. 	
Avenger	Psychological injury based on one or more of the following events: <ul style="list-style-type: none"> Death or serious injury of a family member or another close individual. Trauma related in some way to the Israeli occupation (personal humiliation, or witnessing the humiliation of a relative). Personal or family problems resulting in an individual's feeling that his or her life is worthless (culminating in or including depression). 	<ul style="list-style-type: none"> A sympathetic public atmosphere that praises the martyrs, which includes publicity of names, great honor, and commemoration. Financial support for the family of the deceased suicide terrorist. 	Hopeless, vengeful, tendency to see their life as worthless.
Exploited	Suicide terrorists who are unable to refuse others, or unable to withstand the organizations' pressures to "volunteer" for a suicide operation,	<ul style="list-style-type: none"> A sympathetic public atmosphere that praises the martyrs. The suicide terrorists' belief that all their sins will become "white as snow" and that they 	Dependent, anxious, difficulty-withstanding pressure, recognition seeking.

Prototype	Prerequisites	Supporting Factors	Hypotheses as to the Prototype's Dominant Personality Traits
	such as: <ul style="list-style-type: none"> • Children and youth. • Adults in social distress (collaborators, homosexuals, moral offenders). • People with weak personalities. 	will be granted full atonement for their past.	

Recruitment

Although many terrorists are prone to volunteer for suicide missions, there is still a certain amount of recruitment that is often required to ensure there are sufficient suicide assets available to conduct these types of attacks.

Terrorist groups use various methods to recruit members, including members who will conduct suicide attacks. Many terrorist groups conduct media campaigns that celebrate martyrdom to entice volunteers. Al Qaeda produced a seven-minute recruitment video, which glorifies the virtues of martyrdom and solicits recruits to support Osama bin Laden's cause. It showed scenes of jihadists in combat and images of twenty-seven martyrs with their names, where they were from, and where they died.

Terrorist groups also use recruiters to find suitable candidates for suicide attacks. Candidates can be found in many places. Many Islamic groups find receptive candidates at mosques and Islamic education centers. Palestinian Islamic Jihad especially looks for women in northern West Bank Universities. Groups also use funerals and mourner's booths to exploit feelings of revenge in their recruitment efforts. In some cases, rather than volunteering for these missions, some suicide bombers are blackmailed or pressured into conducting attacks. There is also evidence that preparing future suicide terrorists begins in elementary school for Middle Eastern and Central Asian children. One study found that some school textbooks encourage Palestinian children to participate in stone-throwing now, and to view future suicide attacks favorably.⁴⁴

⁴⁴ Sam Nunn, "Thinking the Inevitable: Suicide Attacks in American and the Design of Effective Public Safety Policies," *Journal of Homeland Security and Emergency Management*, Vol 1, Issue 4, Article 401 (2004), 4.

In Sri Lanka, the Tamil Tigers do not conduct forced recruitment into their suicide squads. Potential recruits receive psychological influences from various sources, such as LTTE war movies, speeches from LTTE members, and the “Hero’s Day,” which honors all suicide terrorists who sacrificed their lives for their cause. The Tiger’s leader, Velupillai Prabhakaran, personally selects recruits for the Black Tigers, and the women’s counterpart, the Birds of Freedom.⁴⁵

"...Palestinian women have torn the gender classification out of their birth certificates, declaring that sacrifice for the Palestinian homeland would not be for men alone; on the contrary, all Palestinian women will write the history of the liberation with their blood, and will become time bombs in the face of the Israeli enemy. They will not settle for being mothers of martyrs..."

Egyptian government daily *Al-Akhbar* on the first
Palestinian Female Suicide Bomber

Female Suicide Terrorists

In addition to the normal recruitment efforts in general for suicide terrorists, terrorist organizations have recognized the advantages to using females to conduct these type attacks. Consequently, there is an increasing involvement of women in what was once a male-dominated area. In fact, the Palestinian Islamic Jihad launched a public campaign in 2003 to specifically recruit women. Women having conducted suicide attacks for numerous terrorist groups in several countries including Lebanon, Turkey, Sri Lanka, Chechnya, Russia, Israel and Iraq. However, the most numerous examples of women carrying out suicide attacks has been the Tamil Tigers, where about a third of the suicide operations have been conducted by women. As Yoni Figchel states in his paper on female suicide bombers, “Women are often perceived as the ‘gentle sex,’ and are less likely to arouse suspicion than men are.”⁴⁶ Additionally, in the conservative societies of the Middle East and South Asia, there is a hesitation to conduct a body search of a woman. Women can wear a suicide bomb under their clothes and hide it either in their chest area or around the waist and appear to be pregnant.

Attacks conducted by women are often against targets where the perpetrator needs to blend in on the street. For example, female suicide attackers in Israel have attempted to westernize their appearance by adopting modern hairstyles and short skirts.⁴⁷ However, this is not unique to the Middle East. In July 2003, two young Chechen women conducted suicide bombings at an outdoor rock concert in Russia, killing 14 people and injuring 53 people.

⁴⁵ Charu Lata Joshi, “Sri Lanka: Suicide Bombers,” *Far Eastern Economic Review*, (1 June 2000), 2; available from <http://www.essex.ac.uk/armedcon/Countries/Asia/Texts/SriLanka011.htm>; Internet; accessed 9 December 2004.

⁴⁶ Yoni Figchel, “Palestinian Islamic Jihad and Female Suicide Bombers,” ICT Research Paper, 6 October 2003, 1; available from <http://www.ict.org.il/articles/articleDet.cfm?articleid=499>; Internet; accessed 13 December 2004.

⁴⁷ *Ibid.*, 1.

This Page Intentionally Blank

Section IV: Profiles of Suicide Terrorists

As with terrorists in general, there is no one basic profile for a suicide terrorist. In the late 1980's and into the early 1990's suicide terrorists tended to be male, ages from their late teens to their early twenties, unmarried, uneducated, unemployed and socially isolated.

Today, characteristics for a suicide terrorist are much more diverse. They tend to come from every educational, religious, social, and personal background. Research covering contemporary suicide attacks reflect the following:

Age: Very young to middle aged. While most suicide operations are carried out by attackers who are in their late teens/early twenties, a suicide terrorist can be any age. The youngest suicide attacker has been reported to be 10 years old from the LTTE.⁴⁸

Marital Status: Both married and single.

Gender: Male and female. LTTE women participated in 30-40 percent of the group's suicide attacks.

Religion: All religions, including Christians, Islam, Judaism, and Hinduism. Many attacks are not related to religion and are motivated by secular reasons.

Education: Uneducated through advanced degrees. Between 1993 and 2003, one-third of Palestinian suicide terrorists were either university students or graduates.⁴⁹

“...no one paid much attention to the young man dressed like an ultra-Orthodox Jew who was standing near some parked cars...Then he blew himself up, killing nine people, eight of them children, and wounding fifty-nine.

Bruce Hoffman in “The Logic of Suicide Terrorism”

Economic status: Poor to affluent.

Personality: Both socially isolated and fully integrated personalities.

Dress: Disguises are often used to enable the attacker to get close to their target. These include dressing as an Israeli soldier or as an Orthodox Jew in the Middle East, wearing wigs, or faking pregnancy by women.

Although there is no distinct defining characteristic of a suicide terrorist that allows someone to immediately identify him/her as a potential suicide attacker, there are some

⁴⁸ ⁴⁸ Clara Beyler, “Messengers of Death: Female Suicide Bombers,” 4.

⁴⁹ Shaul Kimhi and Shmuel Even, “Who are the Palestinian Suicide Terrorists?,” 2.

indicators and behaviors that may alert you to a potential threat. The following is a list of possible indicators published by the Miami-Dade County Homeland Security office.⁵⁰

- Clothing is out of sync with the weather, suspect's social position (he appears well groomed but is wearing sloppy clothing:, or locations (wearing a coat inside a building.)
- Clothing is loose.
- Suspect may be carry heavy luggage, bag, or wearing a backpack.
- Pale face from recent shaving of beard.
- Eyes appear to be focused and vigilant.
- Does not respond to authoritative voice commands or direct salutation from a distance.
- Behavior is consistent with no future, e.g. individual purchases a one-way ticket or is unconcerned about receipts for purchases, or receiving change.
- Suspect is walking with deliberation, but not running.

There is recent evidence of potential “unwilling” suicide bombers. VBIED's have shown evidence of the bomber tied to the seat, feet taped to the foot pedals, and hands cuffed to the steering wheel. These could be evidence of forcing the individual to execute a mission, or prevent “second thoughts”, but also to prevent an injured bomber from losing control of the VBIED.

There is also evidence of “unknowing” suicide bombers. Someone who believes he is emplacing a VBIED to be detonated at a later time, but in fact, is being followed by members of the terrorist cell with the detonator. Ahmed Abdullah Al Shaya, a Saudi Arabian, who believed he was emplacing a VBIED gas truck on December 24, 2004, claims to be an unknowing suicide bomber.⁵¹ Shaya was told by the group he joined to park the butane-gas truck rigged with explosives near the Jordanian Embassy. Shaya had infiltrated into Iraq to become a suicide bomber, but was told he would execute his mission at a later date. Other evidence indicates explosives have been planted in the vehicles of government, police and military personnel and remotely detonated by terrorists. These events were not meant so much to assassinate the individual but to get a VBIED into an area of restricted access.



Ahmed Abdullah Al Shaya, (Source: AP Photo)

⁵⁰ “Terrorism Awareness,” Miami-Dade County Homeland Security Office, 26 July 2004, 3; available from <http://www.miamidade.gov/Homeland/awareness.asp>; Internet; accessed 9 December 2004.

⁵¹ <http://www.usatoday.com/news/world/2005-01-24-suicide-bomber-revenge.x.htm>; Internet accessed 7 August 2005.

Section V: Planning Suicide Operations

The success of suicide operations is dependent on a number of elements, including secrecy, thorough planning and reconnaissance, and good rehearsals. Although there are numerous views on how terrorists actually plan suicide operations, there are some basic steps that they must go through to ensure success. These include:

- **Target selection.** The target for a suicide attack is dependent on a number of factors, including the overall objectives and sophistication of the terrorist group. If the objective of the group is to force a country out of an area, such as the Coalition Forces out of Iraq, the target may be their military force in that country. If the terrorist group is a smaller one without significant resources, the attack may be conducted with grenades or a small IED or VBIED. On the other hand, if the objective is to conduct a spectacular attack, such as the al Qaeda attacks on 9-11, the target may be a symbolic target, such as the World Trade Center and the Pentagon. As was seen, the sophistication required executing these attacks required significant resources and planning.
- **Intelligence gathering.** One of the most important factors in the success of suicide attacks is good intelligence and reconnaissance of the target. As in other types of terrorist attacks, targets showing potential vulnerabilities are given a high priority of effort to gather additional information on the targets' patterns over time. Planning for the attack on the US Embassy in Nairobi took nearly five years and testimony at the trial of terrorists involved in the bombing stated that bin Laden studied surveillance photographs of the embassy compound and chose the spot to position the truck bomb.⁵²
- **Recruitment.** As stated earlier, many terrorists volunteer for suicide missions. However, depending on the terrorist group conducting the operation, there is still a certain amount of recruitment that is required to ensure there are sufficient suicide assets available to conduct these types of attacks.
- **Training.** This varies by terrorist group and normally includes both physical and spiritual training. Training sessions test the attacker's attitudes and performance under pressure and provide an understanding of the operational aspects of the missions as well as operation of the suicide device. Depending on the group and the complexity of the attack, training may last anywhere from a few days to several months. For Tamil Tigers, there is an arduous six-month training course. At the end of the training, he/she will swear an oath of personal loyalty to the leader of the LTTE and

⁵² Bruce Hoffman, *Lessons of 9/11: Testimony Submitted to the Committee Record to the US Joint September 11, 2001 Inquiry Staff of the House and Senate Select Committees on Intelligence on October 8, 2002*, (Arlington: RAND, 8 October 2002), 11.

place a capsule of cyanide around his/her neck to use in case of capture. In the case of some Islamic terrorists, they often undergo religious indoctrination by charismatic clergy who bring them to an ecstatic state and stress that their sacrifice is in the name of jihad.

- Rehearsal. Rehearsals are conducted to improve the odds of success, confirm planning assumptions, and develop contingencies. Terrorists also rehearse to test security reactions to particular attack profiles, which is especially important in suicide operations.
- Preparation of explosives.
- Transportation of the suicide bombers to the target area. Other members of the terrorist group normally provide the suicide attacker with required accommodations, transportation, food, clothing and security until he/she reaches the target.

In order to successfully carry out the mission, there are often many people involved, both terrorists and accomplices, who do not commit suicide, but provide the support to the actual attacker.

Section VI: Execution of Suicide Operations

The suicide bomber will most likely execute their attack employing either an IED or VBIED. The suicide bomber conceals an explosive device on their person and detonates it where it will cause the most damage or they use a vehicle they have converted into a bomb. Both systems offer advantages to the terrorist. An individual can better access the interior of a symbolic location, enter a facility, or gain close proximity to a person. A vehicle-assisted attack offers the opportunity for a mass casualty event against a “soft” target, or the capability to penetrate a “hard” target.

Improvised Explosive Device (IED)

“IEDs continue to be the single largest threat that coalition forces face in Iraq; there were 11,784 known IED-related incidents in 2004”.⁵³ The form of IED most recently used by suicide terrorists fall into three categories: a briefcase/backpack or object carried by the attacker, a vest or belt worn by the attacker, or a hand held bomb/grenade exposed by the attacker just prior to detonation.

The briefcase, backpack or carried form of IED is restricted by the size of the case and can be more easily identified and separated from the attacker. The grenade or hand held bomb is used in crowded areas, especially vicinity buses and other forms of mass transit. The vest or belt form of IED is the preferred method used by suicide terrorists. Worn under loose fitting clothing the device can be undetected unless physically searched and cannot easily be separated from the bomber.



Example of hand-held IED and the damage from hand held IED

(Source: <http://www.sftt.org/>)

⁵³ Greg Grant, “US Begins to Counter IED Threat”, *Jane’s Defense Weekly*, March 2005.



Examples of both a briefcase and vest used to contain or carry an IED

(Source: <http://www.sftt.org/>)

Vehicle Borne Improvised Explosive Device (VBIED)

The 1993 World Trade Center (WTC) attack by Muslim extremists and the 1995 bombing of the Murrah Federal Building by Timothy McVeigh were carried out with rented vehicles. The VBIED for the WTC attack, estimated at 1,200 pounds (544 kg) of explosives, was assembled and transported in a late-model Ford F-350 Econoline van rented from Ryder Truck Rental. The Oklahoma City bomb was comprised of approximately 4,000 lbs of nitrate mixed with fuel and carried in a standard moving truck.⁵⁴

The 1996 attack on the Khobar Towers housing facility in Saudi Arabia consisted of a Water Truck filled with explosives, and recently in the United Kingdom, over a 1000 lbs of ammonium nitrate explosives were recovered pointing to a terrorist intent to employ the explosives using large vehicles.

The U.S. command in Iraq reported 59 VBIEDs in September of 2004, and 30 more in the first nine days of October.⁵⁵

Common applications of Suicide VBIEDs around the world:

- Broken Down Car/Truck – The VBIED is parked along route know to be used by the intended victims. The suicide bomber appears to attempting to fix a tire, or repair an engine problem; the VBEID is detonated as the target comes into range.
- Single Suicide VBIED – The suicide bomber pulls up along side of the target either at a stop or speeds up to ensure target is inside of blast radius while moving.
- Multi-Suicide VBIED – Multiple VBIEDs executing the same TTP as above.

⁵⁴ Potential Threat to Homeland Using Heavy Transport Vehicles”, Information Bulletin U.S. Department of Homeland Security, 30 July 2004.

⁵⁵ “Six U.S. soldiers killed; car bomb tactics on the rise” *St Petersburg Times*, 14 October 2004, online source accessed 31 March 2005.

- Suicide VBIED against a Target Point – This can consist of a VBIED ramming a checkpoint and detonating or using a decoy to allow the VBIED to gain closer proximity to the target.
- Suicide VBIED against a Complex or Facility – Similar to the TTP used against a Check Point but most likely consisting of an “assault” attack, and an “exploitation” attack. Two or more suicide VBIEDs, one or more to breach the facilities security, and one or more to detonate vicinity the target.
- Supported Suicide VBIED versus a Convoy – In this case the Suicide Bomber is assisted by another vehicle to provide reconnaissance as to the best target or control the speed of the convoy to allow for the VBIED to approach the target.

On 15 January 2005, Security Forces in Iraq captured Abu Umar al-Kurdi, a lieutenant of Abu Musab al-Zarqawi. During interviews and interrogation al-Kurdi claimed responsibility for over 32 VBIEDs, and having built 75 percent of the car bombs used in attacks in Baghdad since March 2003. Abu Umar al-Kurdi stated that suicide bombers had carried out his 32+ attacks, among the targets were:

- **Jordanian Embassy, Baghdad, Aug ‘03**
- **United Nations Building, Baghdad, Sept ‘03**
- **Four Police Stations**
- **Several Checkpoints, convoys, and training areas**
- **Supreme Council for the Islamic Revolution in Iraq, Dec ‘04**
- **Iraqi Army Headquarters, Special Operations Command, Jan ‘05**

Source: Iraqi Press release, Washington Institute

VBIED’s can be employed in several ways not resulting in the death of the operator; the focus here is on the Suicide Bomber. For further information on IEDs, VBIEDS and other forms of terrorist attacks, see TRADOC DCSINT Handbook No. 3, *Common Insurgent TTP Diagrams*, 15 Feb 2005.

As the events of 9/11 dramatically illustrate a “wheeled” vehicle is not the only type of VBIED used by a suicidal terrorist. Aircraft are susceptible as to use by suicide terrorists as weapons, as well as targets of suicide terrorists. Evidence points to two Chechen women as the causes for the explosions that resulted in the near simultaneous crash of two Russian jetliners in August 2004. The two women purchased tickets just prior to take off, both had lost family members in the fight against Russian forces, and neither of their bodies were claimed by family members after the crashes. “The crashes were the result of terrorists acts”, a spokesman for the Federal Security Service, Sergei Ignatchenko, told the ITAR-Tass news agency.⁵⁶ Several suicide bombings have been

⁵⁶ “Russia: Explosives Found in Jet Wreckage”, Associated Press, 27 August 2004.

blamed on Chechen women who lost husbands or brothers in the war in the southern republic over the last decade. Both of the women fit the profile of a suicide bomber, whether it was their plan to destroy the jetliners or to use them as VBIEDs is not known.

Trains have been the targets of bombers, but there is no evidence of their use as a VBIED. The fact the bomber does not control the trains operation is most likely the major deterrent. This does not discount the idea of a train being used as a VBIED, especially one carrying materials that could result in a HAZMAT event, or even greater destruction, it simply would not require the use of a suicide bomber.

Several separate groups have incorporated naval vessels as VBIEDs. The most recognized being the al Qaeda attack on the USS Cole in the Yemen port of Aden. During Operation IRAQI FREEDOM, both the Iranian Navy and Australian commerce ships reported sighting “suicide speedboats” in the Persian Gulf. Since the end of the war there have been no reports of ships used as VBIEDs.

Conclusion



Mosul Mess Tent

Source: PHOTOS: <http://www.foxnews.com/story/0,2933,143215,00.html>

“Homicide Bombers will be the next wave of attacks in this country [U.S.]”

Howard Safir, Chairman/CEO of SafirRosetti, and former N.Y.C. Police Commissioner under Rudolph Giuliani. Homeland Defense Journal, March 2005

In today’s age of high-tech warfare the terrorist has countered the technological difference with his own version of precision munitions. The suicide bomber can move to its target without the requirement of a highly trained pilot or computer mechanism, and time the detonation to the exact moment resulting in the most casualties. Unfortunately, the terrorist’s “smart bomb” doesn’t look like a bomb, and unless somehow identified is almost impossible to stop. As combat operations against insurgencies become more successful, and the enemy loses more and more of his trained supporters, he will turn to less trained, but potentially more dangerous options. In the past year multiple suicide bombers, synchronized against a single target, have joined the ranks of the individual suicide bomber. The first suicide bomber acts as either a “fixing force”, drawing forces away from the main effort, or the first bomber is an “assault force” breaching the outer defenses setting the stage for the second bomber. The second bomber is the “exploitation force”, with the mission to destroy the primary target.

The campaign against the suicide bomber is ongoing, the effects of their attacks erodes both stability and reconstruction. The suicide bomber can be anyone, which makes the timely discussion and review of each attack critical to assist in early detection and protection. The motivations can be found in many areas and regions, and only through dialogue and interaction with the population can the profiles be identified.

Page Intentionally Blank

Selected Bibliography

- Beyler, Clara. "Messengers of Death: Female Suicide Bombers," ICT Research Paper, 12 February 2003, 1; available from <http://www.ict.org.il/articles/articledet.cfm?articleid=470>; Internet; accessed 10 November 2004.
- "Female Suicide Bombers – An Update." *International Policy Institute for Counterterrorism* 7 March 2004: 1. Available from <http://www.ict.org.il/articles/articledet.cfm?articleid=508>; Internet; Accessed 31 March 2004.
- Cronin, Audrey Kurth. *Terrorists and Suicide Attacks* (Washington, D.C.: Congressional Research Service Report for Congress, 28 August 2003), 2.
- Figchel, Yoni. "Palestinian Islamic Jihad and Female Suicide Bombers," ICT Research Paper, 6 October 2003, 1; available from <http://www.ict.org.il/articles/articledet.cfm?articleid=499>; Internet; accessed 13 December 2004.
- Ganor, Dr. Boaz. "Suicide Terrorism: an Overview," *International Policy Institute for Counter-Terrorism Article*, 15 February 2000, 3.
- Ganor, Dr. Boaz. "The First Iraqi Suicide Bombing: A Hint of Things to Come?," *International Policy Institute for Counter-Terrorism Article* (30 March 2003): 1; available at <http://www.ict.org.il/articles/articledet.cfm?articleid=477>; Internet; accessed 12 December 2004.
- Goldman, Paul. "Looking Inside the Mind of a Suicide Bomber," *MSNBC.com*, 3 December 2004; available from <http://msnbc.msn.com/id/6330687>; Internet; accessed 13 December 2004.
- Gunaratna, Rohan. "Suicide Terrorism: a Global Threat," in "Suicide Terrorism in Sri Lanka" *IPCS Research Papers*, no. 5, R. Ramasubramanian (August 2004), 3.
- Hoffman, Bruce. *Lessons of 9/11: Testimony Submitted to the Committee Record to the US Joint September 11, 2001 Inquiry Staff of the House and Senate Select Committees on Intelligence on October 8, 2002*, (Arlington: RAND, 8 October 2002), 11.
- Hoffman, Bruce. "The Logic of Suicide Terrorism," in *Terrorism and Counterterrorism: Understanding the New Security Environment*, Russell D. Howard and Reid L. Sawyer (Guilford: McGraw-Hill/Dushkin, 2004), 268.
- Joint Pub 1-02. Department of Defense Dictionary of Military and Associated Terms. 12 April 2001, as amended through 9 June 2004.
- Joshi, Charu Lata. "Sri Lanka: Suicide Bombers," *Far Eastern Economic Review*, (1 June 2000), 2; available from <http://www.essex.ac.uk/armedcon/Countries/Asia/Texts/SriLanka011.htm>; Internet; accessed 9 December 2004.
- Kimhi, Shaul and Shmuel Even. "Who are the Palestinian Suicide Terrorists?," *Strategic Assessment*, Vol 6, No 2 (September 2003), 7-9; available from <http://www.tau.ac.il/jcss/sa/v6n2p5Kim.html>; Internet; accessed 3 December 2004.
- Nunn, Sam. "Thinking the Inevitable: Suicide Attacks in American and the Design of Effective Public Safety Policies," *Journal of Homeland Security and Emergency Management*, Vol 1, Issue 4, Article 401 (2004), 4.
- Pape, Robert A. "The Strategic Logic of Suicide Terrorism," *American Political Science Review*, Vol 97, No 3 (August 2003), 5.

- Raman, B. "Suicide & Suicidal Terrorism," South Asia Analysis Group Paper No. 947 (12 March 2004): 6; available at <http://www.saag.org/papers10/paper947.html>; Internet; accessed 5 January 2005.
- Ramasubramanian, R. "Suicide Terrorism in Sri Lanka" *IPCS Research Papers*, no. 5 (August 2004): 1.
- Schweitzer, Yoram. "Suicide Terrorism: Development & Characteristics," International Policy Institute for Counter-Terrorism Article (21 April 2000): 2; available at <http://www.ict.org.il/articles/articledet.cfm?articleid=112>; Internet; accessed 10 November 2004.
- Sprinzak, Ehud. "Rational Fanatics," *Foreign Policy*, no. 120 (September/October 2000): 66-73.
- Suicide Terror: It's Use and Rationalization*. Jerusalem: Israeli Ministry of Foreign Affairs Website, 23 July 2002. Available from <http://www.mfa.gov.il/mfa/go.asp?MFAH0m6k0>; Internet; Accessed 11 November 2002.
- "Suicide Terrorism." *The Economist* (January 2004): 3. Available from <http://quicksitebuilder.cnet.com/supfacts/id396.html>; Internet; Accessed 17 March 2004.
- "Suicide Terrorism in Comparative Perspective." In *Countering Suicide Terrorism*. Herzilya, Israel: The International Policy Institute for Counter Terrorism, The Interdisciplinary Center, 2002.
- "Suicide Terrorism: A Global Threat," *Jane's Intelligence Review* (20 October 2000): 4; available at http://www.janes.com/security/international_security/news/usscole/jir001020_1_n.shtml; Internet; accessed 12 December 2004.
- "Terrorism Awareness," Miami-Dade County Homeland Security Office, 26 July 2004, 3; available from <http://www.miamidade.gov/Homeland/awareness.asp>; Internet; accessed 9 December 2004.
- U.S. Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports, *Global War on Terrorism – Casualty Summary Operation Enduring Freedom* (Washington, D.C., As of 11 December 2004); available from <http://web1.whs.osd.mil/mmids/casualty/WOTSUM.pdf>; Internet; accessed 21 December 2004.
- U.S. Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports, *Table 13, Worldwide U.S. Active Duty Military Deaths, Selected Military Operations* (Washington, D.C., n.d.); available from <http://web1.whs.osd.mil/mmids/casualty/table13.htm>; Internet; accessed 6 July 2004.
- U.S. Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports, *U.S. Active Duty Military Deaths – 1980 through 2002* (Washington, D.C., As of 10 April 2003); available from http://web1.whs.osd.mil/mmids/casualty/Death_Rates.pdf; Internet; accessed 6 July 2004.
- U.S. Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports, *War on Terrorism – Operation Iraqi Freedom, By Casualty Category Within Type* (Washington, D.C., As of 11 December 2004); available from <http://web1.whs.osd.mil/mmids/casualty/OIF-Total.pdf>; Internet; accessed 21 December 2004.
- U.S. Department of State, Office of the Coordinator for Counterterrorism, *Patterns of Global Terrorism 2003* (Washington, D.C., April 2004, revised 22 June 2004), 176.

Page Intentionally Blank



**“The battle is now joined on many fronts.
We will not waiver, we will not tire,
we will not falter, and we will not fail.
Peace and freedom will prevail...
To all the men and women in our military,
every sailor, every soldier, every airman,
every coast guardsman, every marine,
I say this: Your mission is defined.
The objectives are clear. Your goal is just.
You have my full confidence, and you will have
every tool you need to carry out your duty.”**

**George W. Bush
The President of the
United States of America**



**Supplemental Handbook No. 1.03 *Suicide Bombing in the COE*
to DCSINT Handbook No.1 *A Military Guide to Terrorism in the Twenty-First Century*, Version 3.0
U.S. Army Training and Doctrine Command, Deputy Chief of Staff for Intelligence
Assistant Deputy Chief of Staff for Intelligence-Threats, Fort Leavenworth, Kansas**

DISTRIBUTION RESTRICTION: Approved for public release; distribution unlimited.